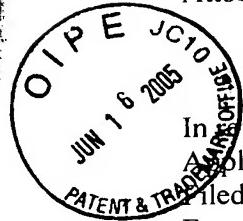


Attorney Docket No.: 5308-412

JFW
PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Saxler
Application No.: 10/849,589
Filed: May 20, 2004

Confirmation No.: 6346
Group Art Unit: 2814
Examiner: Wael M. Fahmy

For: **SEMICONDUCTOR DEVICES HAVING A HYBRID CHANNEL LAYER,
CURRENT APERTURE TRANSISTORS AND METHODS OF FABRICATING
SAME**

Date: June 14, 2005

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Sir:

Attached is a list of documents on Form PTO-1449, together with a copy of any listed foreign patent document and/or non-patent literature. A copy of any listed U.S. patent and/or U.S. patent application publication is not provided herewith in accordance with the amendment by the U.S. Patent and Trademark Office to 37 C.F.R. § 1.98(a)(2)(ii) effective October 21, 2004. Also enclosed is a translation or a concise explanation of each non-English language document enclosed. It is requested that these documents be considered by the Examiner and officially made of record in accordance with the provisions of 37 C.F.R. § 1.56 and Section 609 of the MPEP.

This Information Disclosure Statement is submitted in accordance with 37 C.F.R. § 1.97(b), within three months of the filing date of the above-referenced application or before the mailing of a first Office Action on the merits, whichever event occurs last. Therefore, no fee is believed due. However, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

Respectfully submitted,



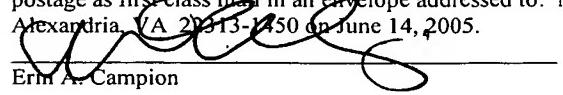
Elizabeth A. Stanek
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USPTO Customer No. 20792

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Telephone: (919) 854-1400
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CERTIFICATE OF MAILING UNDER 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first-class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on June 14, 2005.


Erin A. Campion

Substitute form 1449A/PTO		<i>Complete if Known</i>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Application Number	10/849,589
		Filing Date	May 20, 2004
		First Named Inventor	Saxler
		Group Art Unit	2814
		Examiner Name	Wael M. Fahmy
		Attorney Docket Number	5308-412
Sheet	1	of	3

JUN 16 2005

PATENT & TRADEMARK OFFICE

U.S. PATENTS AND PATENT PUBLICATIONS

FOREIGN PATENT DOCUMENTS

OTHER NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T
	13.	Ando et al., "10-W/mm AlGaN-GaN HFET With a Field Modulating Plate," <i>IEEE Electron Device Letters</i> , 24(5), pp. 289-291 (May 2003).	
	14.	Chang et al., "AlGaN/GaN Modulation-Doped Field-Effect Transistors with an Mg-doped Carrier Confinement Layer," <i>Jpn. J. Appl. Phys.</i> , 42:3316-3319 (2003).	
	15.	Chini et al., "Power and Linearity Characteristics of Field-Plated Recessed-Gate AlGaN-GaN HEMTs," <i>IEEE Electron Device Letters</i> , 25(5), pp. 229-231 (May 2004).	
	16.	Cho et al., "A New GaAs Field Effect Transistor (FET) with Dipole Barrier (DIB)," <i>Jpn. J. Appl. Phys.</i> 33:775-778 (1994).	
	17.	Coffie et al., "Unpassivated p-GaN/AlGaN/GaN HEMTs with 7.1 W/MMF at 10 GHz, <i>Electronic Letters online No. 20030872</i> , 39(19), (September 18, 2003).	
	18.	Gaska et al., "Self-Heating in High-Power AlGaN/GaN HFET's," <i>IEEE Electron Device Letters</i> , 19(3), pp. 89-91 (March 1998).	
	19.	Hikita et al., "350V/150A AlGaN/GaN Power HFET on Silicon Substrate With Source-via Grounding (SVG) Structure," <i>Electron Devices Meeting, 2004</i> , pp. 803-806, IEDM Technical Digest. IEEE International (Dec. 2004).	

Examiner Signature _____ **Date Considered** _____

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 2 of 3

Application Number	10/849,589
Filing Date	May 20, 2004
First Named Inventor	Saxler
Group Art Unit	2814
Examiner Name	Wael M. Fahmy

Attorney Docket Number 5308-412

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	20.	Kanaev et al., "Femtosecond and Ultraviolet Laser Irradiation of Graphitelike Hexagonal Boron Nitride," <i>Journal of Applied Physics</i> , 96(8), pp. 4483-4489 (Oct. 15, 2004).	
	21.	Kanamura et al., "A 100-W High-Gain AlGaN/GaN HEMT Power Amplifier on a Conductive N-SiC Substrate for Wireless Base Station Applications," <i>Electron Devices Meeting, 2004</i> , pp. 799-802, IEDM Technical Digest. IEEE International (Dec. 2004).	
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	24.	Komiak et al., "Fully Monolithic 4 Watt High Efficiency Ka-band Power Amplifier," <i>IEEE MTT-S International Microwave Symposium Digest</i> , Vol. 3, pp. 947-950 (1999).	
	25.	Küsters et al., "Double-Heterojunction Lattice-Matched and Pseudomorphic InGaAs HEMT with δ-Doped InP Supply Layers and p-InP Barrier Enhancement Layer Grown by LP-MOVPE," <i>IEEE Electron Device Letters</i> , 14(1), (January 1993).	
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	32.	"Thick AlN template on SiC substrate – Novel semi insulating substrate for GaN-based devices," © 2003 by TDI, Inc., http://www.tdi.com/products/AIN_SiCT.html .	
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	36.	United States Patent Application entitled "Methods of Fabricating Nitride-Based Transistors with a Cap Layer and a Recessed Gate," Serial No. 10/897,726, filed July 23, 2004 (Attorney Docket No. 5308-392).	
	37.	United States Patent Application entitled "High Power Density and/or Linearity Transistors," Serial No. 11/005,107, filed December 6, 2004 (Attorney Docket No. 5308-511).	
	38.	United States Patent Application entitled "Field Effect Transistors (FETS) Having Multi-Watt Output Power at Millimeter-Wave Frequencies," Serial No. 11/005,423, filed December 6, 2004 (Attorney Docket No. 5308-512).	
	39.	United States Patent Application entitled "Group III Nitride Field Effect Transistors (FETs) Capable of Withstanding High Temperature Reverse Bias Test Conditions," Serial No. 11/080,905, filed March 15, 2005 (Attorney Docket No. 5308-516).	
	40.	United States Patent Application entitled "Aluminum Free Group III-Nitride Based High Electron Mobility Transistors and Methods of Fabricating Same," Serial No. 11/118,575, filed April 29, 2005 (Attorney Docket No. 5308-543).	
	41.	United States Patent Application entitled "Binary Group III-Nitride Based High Electron Mobility Transistors and Methods of Fabricating Same," Serial No. 11/118,675, filed April 29, 2005 (Attorney Docket No. 5308-544).	

Examiner Signature

Date Considered

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Sheet	3	of	3	Attorney Docket Number	5308-412

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	42.	United States Patent Application entitled "Composite Substrates of Conductive And Insulating or Semi-Insulating Group III-Nitrides For Group III-Nitride Devices," Serial No. 11/103,127, filed April 11, 2005 (Attorney Docket No. 5308-551).		
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	45.	Walker, J. L. B. (Ed.), <i>High Power GaAs FET Amplifiers</i> , Norwood, MA: Artech House, pp. 119-120 (1993).		
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	53.	Zhang et al., "High Breakdown GaN HEMT with Overlapping Gate Structure," <i>IEEE Electron Device Letters</i> , 21(9), pp. 421-423 (September 2000).		

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